This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 15. (canceled)

1. ~~16.~~ (Presently amended) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said transcript in said tissue compared to a normal control tissue indicates that ~~said~~ human is at risk of developing insulin resistance, wherein said human Mal 1 transcript comprises ~~at least 10 nucleotides of~~ SEQ ID NO:4 or the complement thereof.

17. –21. (canceled)

2. ~~22.~~ (Previously amended) The method of claim ~~16~~, wherein said increase is 10% more than a normal control value.

3. ~~23.~~ (Previously amended) The method of claim ~~16~~, wherein said increase is 20% more than a normal control value.

4. ~~24.~~ (Previously amended)The method of claim ~~16~~, wherein said increase is 50% more than a normal control value.

25. – 26. (canceled)

5. 27. (Presently amended) ~~The method of claim 25~~ A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said transcript in said tissue compared to a normal control tissue indicates that ~~said~~ human is at risk of developing insulin resistance, wherein said human Mal1 transcript comprises nucleotides 49-456 of SEQ ID NO: 4 or the complement thereof.

28. –30. (canceled)

31. (previously presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a human Mal1 polypeptide in a tissue sample, wherein an increase of at least 5% in the level of said polypeptide in said tissue compared to a normal control tissue indicates that said human is at risk of developing insulin resistance, wherein said human Mal1 polypeptide comprises the amino acid sequence of SEQ ID NO:3.

32. (previously presented) The method of claim 31, wherein said increase is 10% more than a normal control value.

33. (previously presented) The method of claim 31, wherein said increase is 20% more than a normal control value.

34. (previously presented) The method of claim 31, wherein said increase is 50% more than a normal control value.

6. ~~35~~. (presently presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a mouse Mal1 transcript in a tissue sample, wherein an increase of at least 5% in the level of said mouse MAL 1 transcript in said sample tissue compared to a normal control tissue indicates that ~~said~~ the mouse is at risk of developing insulin resistance, wherein said mouse Mal1 transcript comprises ~~at least 10 nucleotides of~~ SEQ ID NO:2 or the complement thereof

36. (previously presented) A method of diagnosing a risk of developing insulin resistance comprising determining the level of a mouse Mal1 polypeptide in a tissue sample, wherein an increase of at least 5% in the level of said polypeptide in said tissue compared to a normal control tissue indicates that said mouse is at risk of developing insulin resistance, wherein said mouse Mal1 polypeptide comprises the amino acid sequence of SEQ ID NO:1.